April 16, 2020

Christopher Wider, Chairman

Town of Norfolk – Zoning Board of Appeals
One Liberty Lane
Norfolk, MA 02056

Re: Norfolk, MA – The Residences at Norfolk Station
194 Main Street
Comprehensive Permit Peer Review #3

Dear Chairman Wider:

BETA Group, Inc. (BETA) has completed peer review #3 of the civil and stormwater related elements of the site plans and supporting engineering documents for the above-referenced project, based on the following materials:

- Conceptual Layout and Conceptual Grading & Drainage plans, The Residences at Norfolk Station. 194 Main Street, Norfolk MA, two (2) sheets, dated March 18, 2020 prepared by Zenith Engineering Consultants, LLC;
- Architectural Plans, The Residences at Norfolk Station. 194 Main Street, Norfolk MA, eight (8) sheets, dated March 18, 2020, prepared by RESCOM Architectural, Inc;
- Notice of Project Change letter to the Applicant from MassHousing, dated February 5, 2020;
- Letter to the Norfolk ZBA from the Applicant, dated March 20, 2020, regarding the Town of Norfolk draft 2019 Design Review Guidelines;
- PRE/POST Watershed plans, PRE/POST HydroCad reports and Proposed Drainage Summary, The Residences at Norfolk Station, 194 Main Street, Norfolk MA, dated March 18, 2020 prepared by Zenith Engineering Consultants, LLC;
- Peer Review Response letter, dated October 23, 2019 prepared by Zenith Consulting Engineers, LLC (ZCE);
- Comprehensive Permit Plan, The Residences at Norfolk Station. 194 Main Street, Norfolk MA, plan set, twenty (20) sheets, dated August 29, 2018, revised October 31, 2019 prepared by Zenith Engineering Consultants, LLC;
- Application for Comprehensive Permit, The Residences at Norfolk Station, dated December 13, 2018;
- Stormwater Management Report, The Residences at Norfolk Station, 194 Main Street, Norfolk MA, dated August 23, 2018 prepared by Zenith Engineering Consultants, LLC;
- Comprehensive Permit Plan, The Residences at Norfolk Station. 194 Main Street, Norfolk MA, plan set, twenty (20) sheets, dated August 29, 2018 prepared by Zenith Engineering Consultants, LLC;
- Fire Department Memorandum dated January 9, 2019 from Chief Cole Bushnell, Norfolk Fire Department;
- Fire Department Memo dated September 26, 2018 from Chief Cole Bushnell, Norfolk Fire Department;
- Conservation Commission comment email dated September 18, 2018;
- Norfolk Town Planner letter to the Norfolk ZBA dated October 11, 2018;

- Norfolk Town Planner letter to the MassHousing Comprehensive Permit Program dated June 7, 2018
- MassDEP Stormwater Management Standards (SMS)

A discussed at the Board's meeting on April 1st, this civil / site peer review is intended to be a "high level" review of the new conceptual site plans. This review focuses on general site layout, access for emergency vehicles and stormwater management approach as now shown on the new plans. This review will help inform the Board in their decision-making process. As discussed, a detailed peer review of the final plans shall be performed prior to initiating construction.

Where referenced, the term "applicant" refers to either the applicant itself or its design consultants, and Section references are to the Norfolk 'Rules & Regulations for Subdivision of Land & Site Plan Approval,' amended September 16, 2010 (referred to herein as the Subdivision/Site Plan Regulations) or the 'Zoning Bylaws with Amendments Through May 2014' (referred to herein as the Zoning Bylaws).

The following are our comments on the revised "conceptual" site plans, Applicant letter to the ZBA and revised stormwater calculations. This revised site design represents a significant change to the proposed site layout from that which our previous two peer reviews were based. Buildings have been changed and reoriented on the site, the number of units has been reduced from 60 multi-family to 36 townhouse style condominium units, and parking areas and onsite utilities have been substantially reconfigured.

Peer review of additional traffic information and the architectural design will be provided to the Board in separate letters.

General

1. The project proposes a 36-unit, non-age restricted townhouse development under Chapter 40B on a single parcel. A single 24-ft access driveway provides site access from Main Street. 43 parking stalls 9-ft x 18-ft have been provided outside of the units. Six proposed duplex townhouses include garages under the building.

2. It is anticipated that The Applicant will be requesting certain waivers from local zoning and subdivision regulations, as well as other Town by-laws. These waiver requests as they relate to civil/site design and stormwater will be evaluated as the process advances.

3. It has been established during previous peer reviews of the project that there are no wetland resource areas within 100-feet of the site parcel.

Stormwater Management

1. The Applicant has requested a waiver from all applicable Subdivision Rules and Regulations of the Town of Norfolk, including Section 4.19 Stormwater Management Systems. Section 4.19 establishes certain requirements for the design of onsite stormwater management systems that are more stringent than the SMS.

2. The revised Drainage Summary and PRE/POST HydroCAD reports indicates that the proposed stormwater management system provides sufficient mitigation for peak runoff rates and volumes for the 2, 10, 25, 50 and 100 YR design storms under Post Development conditions.

3. The Applicant proposes one surface stormwater infiltration basin (Basins 1P) and one subsurface infiltration chamber system (Pond 3P). The actual infiltration chamber system is not shown on the conceptual plans but its proposed location beneath the access driveway is labeled "Conceptual Drainage Area". Only one test pit has been conducted within Basin 1P (TP D-1) while no test pits have been done in the other stormwater basin. Section 4.19 Stormwater Management Systems requires one test pit per 5,000 SF of area for infiltration Best Management Practices (BMPs).

   Recommendation: Per our previous peer reviews of this project, we recommend requiring test pits be conducted prior to construction as a condition of approval, with the results of the test pits provided to the Town for review. Should the results of the test pits indicate that modifications to the stormwater BMPs are required, those design modifications should also be submitted to the Town for review and approval.

4. The conceptual Grading & Drainage plan shows the proposed stormwater system schematically with no rim/invert elevations or pipe sizes. The conceptual layout appears feasible, supplemental data will need to be provided to confirm this.

   Recommendation: The overall drainage/stormwater Management system appears to be feasible and reasonable. The applicant should provide a final stormwater report and supporting stormwater management system data for review once the final plans are complete.

5. Disposition of building roof runoff should be identified on the final design plans.

Plans

1. The Existing Conditions Plan shows an existing drainage easement running along the south/easterly side of the parcel. An existing drain line along with several drainage structures are shown within the easement. The size / material / location of the drain line and structures was determined during the previous peer reviews.

   Recommendation: The existing conditions plan should be updated with any new site data obtained during the ongoing peer review process.

2. The limits for the proposed subsurface sewage disposal system are shown on the Conceptual Layout Plan as dashed squares. No actual septic field or septic system components are shown.

   Recommendation: The final plans should add the septic system component locations to the Grading and Utilities Plan when designed to confirm that no conflicts exist with other site utilities. Appropriate setback dimensions should also be considered to confirm that the system components will fit within their designated area(s).

3. Infiltration Chamber System 3P should be added to the final Grading & Drainage plan to verify it will fit in the designated area.

4. The proposed drainage inlet structures will need to be specified as either catch basins or water quality inlet structures on the final design plans.

5. Proposed Water/Fire/Sewer service mains and building connections will need to be shown on the final design plans.

6. The Applicant has provided truck turning templates to demonstrate circulation for emergency vehicles within the site. The site access drive and parking lot are adequate to accommodate the emergency vehicle. Similar to the previous design, the dead-end parking lanes will require that trucks back-up to egress the site.

   Recommendation: The Fire Chief should review the revised plans to confirm they are acceptable to the Fire Department. Any revisions should be incorporated into the final plans for review.

7. The previous proposed site layout/grading scheme required 6,600 CY of fill be imported. As part of the final plan development the anticipated earthwork volume should be revised and provided to the Board for review.

Based on our "high level" review of the revised conceptual plans, we do not see any fatal flaws and feel that the details of the design can likely be addressed as part of the final plan development. A peer review of the final plans should be conducted not only to insure that any conditions of approval are addressed, but also to resolve any outstanding technical issues.

If you have questions about any of the preceding comments, please feel free to contact either Bill McGrath or myself at (401) 333-2382.

Very truly yours,

BETA Group, Inc.

Todd Undzis, P.E.
Project Manager

cc: Bill McGrath, P.E. – BETA Senior Associate